MIKHAYLOV, Yu.D.

Characteristics of changes in the level and the currents of the Gulf of Finland during storm surges in the mouth of the Neva River in December 1961. Trudy GOIN no.81:130-134 '64. (MIRA 17:11)

MIKHAYLOV, Yu.D.

Correlation of the wind velocity over the open part of the Gulf of Finland and at coastal stations. Trudy GOIN no.82: 25-32 '64 (MIRA 18:2)

MIKHAYLOV, Yu.P.

Fluctuations of Finland Gulf level and their connection with Pulkovo microseismic waves. Izv. Vses. geog. ob.-va 97 no.2: 166-169 Mr-Ap '65. (MIRA 18:5)

BRODETSKIY, G.G.; LANDE, P.A.; D'YACHKOVA, Z.S.; MIKHAYLOV, Yu.F.

Ladle brick and stop pipes made of dressed Kyshtym kaolin.
Ogneupory 25 no.10:443-448 '60. (MIRA 13:10)

1. Chelyabinskiy metallurgicheskiy zavod (for Brodetskiy, Lande).
2. Vostochnyy institut ogneuporov (for D'yachkova, Mikhaylov).
(Steelworks—Equipment and supplies)
(Kaolin)

STRELOV, K.K.; MAMYKIN, P.S.; Prinimali uchastiye: BAS'YAS, I.P.; BICHURINA, A.A.; BRON, V.A.; VECHER, N.A.; VOROB'YEVA, K.V.; D'YACHKOVA, Z.S.; D'YACHKOV, P.N.; DVORKIND, M.M.; IGNATOVA, T.S.; KAYBICHEVA, M.N.; KELAREV, N.V.; KOSOLAPOV, Ye.F.; MAR'YEVICH, N.I.; MIKHAYLOV, Yu.F.; SEMKINA, N.V.; STARTSEV, D.A.; SYREYSHCHIKOV, Yu.Ye.; TARNOVSKIY, G.I.; FLYAGIN, V.G.; FREYDENBERG, A.S.; KHOROSHAVIN, L.B.; CHUBUKOV, M.F.; SHVARTSMAN, I.Sh.; SHCHETNIKOVA, I.L.

Institutes and enterprises. Ogneupory 27 no.11:499-501 '62. (MIRA 15:11)

1. Vostochnyy institut ogneuporov (for Strelov). 2. Ural'skiy politekhnicheskiy institut im. S.M. Kirova (for Mamykin).
(Refractory materials--Research)

SHVARTSMAN, I.Sh.; MIKHAYLOV, Yu.F.; PAPAKIN, Kh.M.; VYDRINA, Zh.A.; KUZNETSOVA, N.V.; VISLOGUZOVA, E.A.; KUL'CHITSKAYA, I.B.

Optimum apparent density of steel pouring stoppers made by the stiff mud process. Ogneupory 30 no.6:9-14 '65.

(MIRA 19:1)

1. Vostochnyy institut ogneuporov (for Shvartsman, Mikhaylov).
2. Nizhne-Tagil'skiy metallurgicheskiy kombinat imeni Lenina (for Papakin, Vydrina, Kuznetsova, Visloguzova, Kul'chitskaya).

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S/056/61/040/006/001/031
B102/B214

24.7700

AUTHORS: Kolchin, A. M., Mikhaylov, Yu G., Reynov, N. M., Rumyantseva, A. V., Smirnov, A P , Totubalin, V. N

TITLE: Investigation of the destruction of superconductivity in thin tin films

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v 40, no. 6, 1961, 1543 - 1550

TEXT: The possibilities of practically applying superconduction effects (cf. Proc IRE, 48, 1233 and 1395, 1960) make it of interest to study the destruction of the superconductivity of thin metal films as caused by current. Subject to this work was to elucidate the regularities of the destruction of superconductivity by a magnetic field or a current, as well as to describe the laws governing the return of the film to the superconducting state on removal of the field (current) in a larger temperature interval. The investigations were limited to films of thicknesses (1 - 8) 10^{-5} cm under the action of current pulses of different shapes and lengths and at temperatures near the critical one The results of the measurements have

Card 1/5

Investigation of ...

been presented earlier to the Seventh All - Union Conference on Low Temperature Physics in Khar'kov (June 1960). The films were prepared by vacuum sputtering (10^{-5} mm Hg). Fig. 1 shows the appearance of such a sample with the current and voltage contacts. The backing was glass or mica, chemically purified and heated in vacuo. The film thickness was determined by weighing; the breadths of the films were 0.10 - 0.25 mm. The resistances of the films amounted to 30 - 130 ohms at room temperature. Direct current experiments were done with a potentiometer circuit with galvanometer or rheochord with automatic recording of current and voltage by recording potentiometers of the types ЭПП-09М (EPP-09M) and ЭПП-11М (EPP-11M). The transition of the sample to (from) the superconducting state was established by an oscillographic apparatus (use of an oscillograph of the type ЭНО-1 (ENO-1)) which allows to observe and photograph the volt-ampere characteristics. Generators of the types ГИС-2 (GIS-2) and ГИ-3М (GI-3M) were used to study the destruction of superconductivity by pulsed current (duration of the pulse 0.1 - 10 sec) The current and voltage were recorded simultaneously by a double-ray oscilloscope of the type ДЭСО-1 (DESO-1). In direct current operation at 4.2°K, films of resistance of 1 - 6 ohms and resistivity 0.4 - 1 μohm/cm were investigated.

Card 2/5

Investigation of ...

The critical temperature of these films for a measuring current of 40 μa lay between 3.75 and 3.85°K and was therefore higher than for massive tin. The experiments showed that with increasing current the resistance increased first very slowly, and for currents over 10 ma more rapidly. The transition of the sample from the superconducting to the normal state on increasing current was investigated by taking measurements with triangular pulses. The influence of thermal effects on the transition could also be studied in this way. It was found that the sample was heated even by a rise and fall in the pulse of 0.1 μsec each. This heating is attributed to the appearance of a hysteresis on transition from normal to the superconducting state. Fig. 8 shows a volt - ampere characteristic (pulse growth 0.5 μsec, fall 0.1μsec, sequence 50 cps, I_{max} = 150 ma). Further measurements were made by rectangular pulses of 0.1 - 10μsec (front 0.05 - 0.15 μsec). Fig. 10 shows an oscillogram of the transitions of a sample from the superconducting to the normal state for a pulse length of 2 μsec (upper curve: current, lower: voltage). The following results were obtained from the studies: The regularities found hold for films of such thicknesses for which the current destroying the superconductivity depends only slightly on the thickness.

Card 3/5

Investigation of ...

For thinner samples, other regularities are to be expected. Under the action of very short pulses the transition is greatly affected by Joulean heat and heat caused by Foucault currents. Besides the hysteresis of thermal effects on transition from the normal state to the superconducting state, there is also observed a hysteresis which is attributed to the existence of superconducting domains in the normal phase. The duration of the spontaneous transition to the superconducting state is considerably smaller than that of the destruction of the intermediate state arising when the superconducting state is destroyed by current. The duration of transition from the superconducting to the normal state depends on the amplitude of the current in the pulse. For sufficiently large amplitudes, the transition time is $t < 5 \cdot 10^{-9}$ sec. A. A. Galkin is mentioned. There are 12 figures and 10 references: 4 Soviet-bloc and 6 non-Soviet-bloc. The most important references to English-language publications read as follows: J. W. Bremer, V. L. Newhouse. Phys. Rev. 116, 309, 1959 and Phys. Rev. Lett. 1, 282, 1958; C. R. Smallman et al. Proc. IRE, 48, 1562, 1960.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Institute of Physics and Technology of the Academy of Sciences, USSR)

S/120/62/000/003/032/048
E032/E114

AUTHORS: Grigor'yev, A.D., Mikhaylov, Yu.G., Reynov, N.M., Rumyantseva, A.V., and Smirnov, A.P.

TITLE: An apparatus for producing films by evaporation in vacuo

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 133-135

TEXT: A description is given of a laboratory apparatus (including a full sectional drawing) for the production of films of metals and dielectrics. It can be used to evaporate five different materials and to obtain (in a single pumping cycle) multi-layer systems consisting of films with ten different configurations in any desired sequence. The thickness of the films is determined in situ from their resistance. Alundum evaporators heated directly by tungsten spirals are employed (maximum temperature 1700 °K, 160 W). The pumping speed (oil diffusion pump) is 250 litres/sec and the working pressure is 5×10^{-6} mm Hg. The targets are cooled by liquid nitrogen. There are 3 figures.

Card 1/2

An apparatus for producing films... S/120/62/000/003/032/048
E032/E114

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR
(Physicotechnical Institute AS USSR)

SUBMITTED: November 14, 1961

Card 2/2

[redacted], Yu. I. --"Investigation of the Possibility of Transporting Ore by Conveyer in the Mines of the Krivoy Rog Iron-Ore Basin." *(Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions, Min of Higher Education USSR, Dnepropetrovsk Order of Labor Red Banner Mining Inst imeni Artem, Dneprpetrovsk, 1955

SO: Knizhnaya Letopis', No. 25, 16 Jun 55

* For Degree of Doctor of Technical Sciences

MIKHAYLOV, Yu.I., inzhener

The Krivbass-8 mining conveyor. Gor.zhur. no.3:35-37 Mr '55.
(Krivoy Rog--Conveying machinery) (MLRA 8:7)

SIMFOROV, G.Ye., gornyy inzhener; MIKHAYLOV, Yu.I., gornyy inzhener

Ways of increasing the chute breast output. Gor.zhur. no.7:61-62 Jl '55. (MLRA 8:8)
(Mining engineering)

KANDYBA, M.I.; MIKHAYLOV, Yu.I.; SHOSTAK, A.G.

An analysis of ore haulage in the mines of the Krivoy Rog basin. Gor.zhur. no.8:10-15 Ag '55. (MLRA 8:8)
(Krivoy Rog--Mine haulage)

MIKHAYLOV, Yu.I.

OLEYNIKOV, V.S., gornyy inzhener; PLEMYASHOV, A.S., gorny inzhener; VERESA, F.I., gornyy inzhener; MIKHAYLOV, Yu.I., gornyy inzhener.

Conveyor delivery of iron ore in mines. Mekh.trud.rab. 9 no.10:15-16 O '55. (Mining machinery) (MLRA 9:1)

MIKHAYLOV, Yu.I.; SHOLDYREV, A.Ye., redaktor; EVENSON, I.M., tekhnicheskiy redaktor

[Conveying ore in mines of the Krivoy Rog Basin] Konveiernaia dostavka rudy na shakhtakh Krivorozhskogo basseina. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 95 p.
(MLRA 10:10)

(Krivoy Rog Basin--Mine haulage)

MIKHAYLOV, Yu.I., inzhener; GOHBATOV, V.S., inzhener.

Mining slat conveyers. Mekh. trud. rab. 11 no.4:43-45 Ap '57.
(Conveying machinery) (MLRA 10:6)

MIKHAYLOV, Yu. I.

YAMKOVOY, G.T., insh.; DYDZINSKIY, V.V., insh.; PETRENKO, N.S., inzh.; CHUB, V.F., insh; MIKHAYLOV, Yu.I., insh.

Technical progress in the mining industry. Mekh. trud. rab. 11 no.12:12-15 D '57. (MIRA 11:3)
(Mining machinery)

AUTHOR: Mikhaylov, Yu.I., Engineer SOV-118-58-10-6/16

TITLE: A Closed Slat Conveyor for the Delivery of Iron Ore (Zakrytyy plastinchatyy konveyyer dlya dostavki zheleznoy rudy)

PERIODICAL: Mekhanizatsiya trudoyëmkikh i tyazhëlykh rabot, 1958, Nr 10, pp 19 - 20 (USSR)

ABSTRACT: The first slat-conveyor for the galleries of NIGRI-PKO-600, is at present undergoing trials in the mine imeni Dzerzhinskiy. It was constructed in the "Kommunist" Plant and was designed by the Krivoy Rog nauchno-issledovatel'skiy gornorudnyy institut NIGRI (The Krivoy Rog Scientific Research Institute NIGRI). It has a capacity of 450-600 tons/hour. There are 3 diagrams.

1. Iron ore--Handling 2. Mining equipment--Design

Card 1/1

MIKHAYLOV, Yu.I.

Conveyer haulage of ore in Krivoy Rog Basin accumulation stopes. Nauch. trudy MGI no. 20:45-53 '58. (MIRA 11:8)
(Krivoy Rog--Mine haulage)
(Conveying machinery)

ONOPRIYENKO, A.G., gornyy inzh.; MIKHAYLOV, Yu.I., gornyy inzh.

Inclined tunnel driving at the rate of 200.5 m. a month. Gor.zhur. no.3:32-33 Mr '60. (MIRA 14:5)
(Tunneling) (Blasting)

MIKHAYLOV, Yu.I., inzh.; BERDICHEVSKIY, M.A.

Conveyer trains used in the German coal-mining industry.
Mekh.i avtom.proizv. 14 no.1:61-64 Ja '60.
(MIRA 13:5)

(Germany, West--Mine railroads)

MIKHAYLOV, Yu. I., inzh.; LINITSKIY, V.G., inzh.

Transportation of iron ores on a scraper conveyer. Mekh.i avtom. proizv. 15 no.6:27-29 Je '61. (MIRA 14:6)
(Krivoy Rog Basin—Mine haulage)

MIKHAYLOV, Yu.I., dotsent, kand.tekhn.nauk

"Vibratory conveying machinery for mines (practices abroad)" by A. O. Spivakovskii, I.F. Goncharevich. Reviewed by IU I. Mikhailov. Vest.mash. 41 no.2:83-84 F '61. (MIRA 14:3)
(Mining machinery)
(Spivakovskii, A.O.) (Goncharevich, I.F.)

TARAN, P.N., kand.tekhn.nauk (Krivoy Rog); MIKHAYLOV, Yu.I., kand.tekhn. nauk (Krivoy Rog); SIMFOROV, G.Ye., gornyy inzh. (Krivoy Rog)

Improving methods of tapping ore deposits at great depths. Gor.zhur. no.5:23-25 My '62. (MIRA 16:1)
(Krivoy Rog Basin--Iron mines and mining)
(Conveying machinery)

TARAN, P.N., kand.tekhn.nauk; MIKHAYLOV, Yu.I., kand.tekhn.nauk

Complete automation of mine haulage. Gor. zhur. no.12:21-25 D '62. (MIRA 15:11)

(Mine haulage) (Automation)

MIKHAYLOV, Yu.I.

"Underground conveying machinery" by A.O. Spivakovskii and others. Reviewed by IU.I. Mikhailov. Mekh. i avtom.proizv. 16 no.1:56 Ja '62. (MIRA 15:1)

(Conveying machinery)
(Spivakovskii, A.O.)

DITMAN, I.A., inzh.; MIKHAYLOV, Yu.I., inzh.

Bunker conveyors. Mekh.i avtom.proizv. 16 no.8:52-53 Ag '62. (MIRA 15:9)
(Conveying machinery)

MIKHAYLOV, Yu.I.; SAGUYCHENKO, I.K.; SYCHEV, K.P.; TRUBCHANINOV, I.D.

Electrotensiometer for studying the parts of conveying apparatus. Sbor. nauch. trud. KGRI no.19:117-123 '62. (MIRA 16:5)

(Conveying machinery—Testing) (Tensiometers)

BAZUTKIN, V.V.; MIKHAYLOV, Yu.I.

Basic principles of automatic control of conveyors. Sbor. nauch. trud. MGRI no.19:123-135 '62. (MIRA 16:5)

(Conveying machinery) (Automatic control)

MIKHAYLOV, Yu.I.

Analysis of the basis parameters of a scraper apparatus and a conveyor in joint ore recovery operations. Sbor. nauch. trud. KGRI no.19:135-146 '62. (MIRA 16:5)

(Scrapers) (Conveying machinery)

MIKHAYLOV, Yu.I., kand. tekhn. nauk; CHIRKOV, Yu.I., inzh.; MAKEYEV, A.A., inzh.

Opening the northern group of mines in the Krivoy Rog Basin. Met. i gornorud. prom. no.5:56-61 S-O '63. (MIRA 16:11)

1. Krivorozhskiy gornorudnyy institut (for Mikhaylov, Chirkov). 2. Rudnik im. Ordzhonikidze (for Makeyev).

MIKHAYLOV, Yu.I., inzh.; SHIRENKO, F.I., inzh.; MAKASHOV, V.N., inzh.

Conveyor train for "Slantsy" Combine mines. Sbor.nauch. trud. KGRI no. 21:224-233 '63. (MIRA 17:7)

MIKHAYLOV, Yu.I., kand. tekhn. nauk

Design of a double-drum drive for blet conveyors. Izv. vys. ucheb. zav.; gor. zhur. 6 no.8:54-60 '63. (MIRA 16:10)

1. Krivorozhskiy gornorudnyy institut. Rekomendovana kafedroy rudnichnogo transporta i gornykh mashin.

MIKHAYLOV, Yu.I., kand. tekhn. nauk

Ways of improving belt conveyers in mining and ore dressing combines of the Krivoy Rog Basin. Gor. zhur. no.8:48-52 Ag '64. (MIRA 17:10)

1. Krivorozhskiy gornorudnyy institut.

MIKHAYLOV, Yu.I., dotsent; CHIRKOV, Yu.I., dotsent

Determining the optimal number of levels being opened by one stage of an inclined conveyor shaft. Izv. vys. ucheb. zav.; gor. zhur. 7 no.10:11-14 '64.

(MIRA 18:1)

1. Krivorozhskiy gornyy institut. Rekomendovana kafedroy rudnichnogo transporta i gornykh mashin.

MAKASHOV, V.N.; MIKHAYLOV, Yu.I.

Results of the industrial testing of the KPR-60 mining apron conveyor.
Met. i gornorud. prom. no.5:55-57 S-O '64. (MIRA 18:7)

MIKHAYLOV, Yu.I., kand.tekhn.nauk

Investigating the physical pattern of the interaction of a conveyor-type [illegible]uating mechanism with a loose load during the operation from under cavings. Izv.vys.ucheb.zav.; gor.zhur. 7 no.12:80-85 '64. (MIRA 18:2)

1. Krivorozhskiy gornorudnyy institut. Rekomendovana kafedroy rudnichnogo transporta i gornykh mashin.

MIKHAYLOV, Yu.I., kand.tekhn.nauk

Basic regularities of moving bulk loads from heaps. Izv.vys.ucheb.zav.; gor.zhur. 8 no.11:97-104 '65. (MIRA 19:1)

1. Krivorozhskiy gornorudnyy institut. Rekomendovana kafedroy rudnichnogo transporta i gornykh mashin. Submitted July 2, 1965.

MIKHAYLOV, Yu.M. (Sverdlovsk)

Strangulation of traumatic diaphragmatic hernia. Khirurgiia no.9: 67-68 S '54. (MLRA 7:12)
(HERNIA, DIAPHRAGMATIC, complications, strangulation)

KOLOSOVSKAYA, V.F.; MIKHAYLOV, Yu.M.

A case of injury of the thoracic duct in a stab wound of the thorax.
Khirurgiia 32 no.8:75-77 Ag '56. (MLRA 9: 12)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. V.F.Kolosovskaya)
Sverdlovskogo meditsinskogo instituta (dir. - prof. A.F.Zverev)
(THORACIC DUCT)
(WOUNDS AND INJURIES, case reports
thoracic duct, stab wound)

MIKHAYLOV, Yu.M.

Congenital left-sided diaphragmatic hernia. Khirurgiia Supplement:7 '57. (MIRA 11:4)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. V.F.Kolosovskaya) Sverdlovskogo meditsinskogo instituta (dir. - prof. A.F.Zverev)
(DIAPHRAGM--HERNIA)

MIKHAYLOV, Yu.M.

MIKHAYLOV, Yu.M. (Sverdlovsk)

Clinical classification of goiters. Probl.endok. i gorm. 3 no.2: 103-107 Mr-Ap '57. (MIRA 10:10)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.F.Kolosovskaya) Sverdlovskogo meditsinskogo instituta (dir. - prof. A.F.Zverev)
(GOITER
clin. classif. (Rus))

MIKHAYLOV, Yu.M. (Sverdlovsk, ul. Ordzhonikidze, d.23-1)

Perforation of the rectal wall by a fecal concretion. Vest.khir. 78 no.3:124 Mr '57. (MLRA 10:6)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof.M.G.Zaytsev) Sverdlovskogo meditsinskogo instituta.

(RECTUM, perf.
by excremental clot (Rus))

MIKHAYLOV, Yu. M., Cand Med Sci -- (diss) "Materials on the study of goiters in children and adolescents in the endemic focus of the Urals. (Several problems relating to the clinical aspect, treatment, prophylaxis and morphology)." Sverdlovsk, 1958. 15 pp; (Sverdlovsk State Medical Inst); 200 copies; price not given; (KL, 29-60, 127)

MIKHAYLOV, Yu.M. (Sverdlovsk, ul. Ordzhonikidze, d.23, kv.1)

Treatment of goiter in children and adolescents [with summary in English]. Vest.khir. 81 no.12:28-31 D '58. (MIRA 12:2)

1. Iz khirurgicheskoy kliniki (zav. - prof. V.F. Kolosovskaya) Sverdlovskoy oblastnoy klinicheskoy bol'nitsy No.1 (glavnyy vrach - M.S. Levchenko).
(GOITER, in inf. & child
conservative ther. (Rus))

MIKHAYLOV, Yu.M.

On the prevention of endemic goiter. Probl.endok. i gorm. 5 no.4: 102-104 Jl-Ag '59. (MIRA 13:2)

1. Iz kafedry fakul'tetskoy khirurgii (zaveduyushchiy - prof. V.F. Kolosovskaya Sverdlovskogo gosudarstvennogo meditsinskogo instituta (direktor - prof. A.F. Zverev).
(GOITER prev. & control)

MIKHAYLOV, Yu. M.

AUTHOR: Mikhaylov, Yu. M. 37-12-11/12

TITLE: Determination of the Coefficient K of the Electromagnetic Method for Measuring the Velocity of Sea Currents (K opredeleniyu koeffitsiyenta K elektromagnitnogo metoda izmereniya skorosti morskikh techeniy)

PERIODICAL: Trudy Nauchno-issledovatel'skogo instituta zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln, 1957, Nr 12 (22), pp. 241-247 (USSR)

ABSTRACT: The article recommends expressing the problem in terms of a horizontal conductor moving in the close-to-the-surface layer of water. The displacement is considered only in relation to the vertical component of the earth's magnetic field. The article field created by sea water in motion is expressed as $\bar{E} = [\bar{V} \times \bar{H}]$, where V is the speed of the layer of sea water moving horizontally, and H is the intensity of the magnetic field. For a non-conducting bottom (of sea) and at constant velocity (where depth is the controlling factor) no measurement is possible. The limitations do not

Card 1/2

apply to nature: here the multiplicity of surging parasitic electrical fields introduces a number of observational errors. The relative error in determining the coefficient K is expressed as a ratio of the electromagnetic force induced in the conductor (E) and the difference $\Delta\varphi_m = E - \Delta\varphi$ (observation), where $\Delta\varphi_m$ is the measured voltage. The coefficient depends on the vertical distribution of velocity, on the conductivity of the sea bottom and on variable depths. The problem is expressed in terms of Maxwell's equation:

$$\text{rot } \bar{E} = -\frac{\partial H}{\partial t} + \text{rot } [\bar{V} + \bar{H}]$$

The solution is identical with the one obtained from Poisson's equation in electrostatics. (The solution of Poisson's equation is based on the distribution of velocity along the x-axis). The conclusion drawn from the available data in the article is that the coefficient K depends on the vertical distribution of velocity and on the function determining the rate of decay. The variations in velocity affect the value K, which, in addition, is also affected by counter-currents, although within very rigid limits. V. V. Novysh is mentioned. There are 3 figures and 5 references, of which 1 is Russian.

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MIKHAYLOV, Yu.M.

Using the electromagnetic method for measuring sea current velocities at various depths. Trudy GOIN no.40:47-49 '57. (MLRA 10:7)

(Ocean currents)

MIKHAYLOV, Yu.M.

Wave noise supressor for the electromagnetic current meter. Trudy NIZMIR no.16:149-158 '60. (MIRA 14:3)
(Ocean currents) (Electric measurements)

L 1572h-63 EWT(1)/BDS AFFTC/ESD-3 Pi-h/Po-h TF
ACCESSION NR: AR3002663 S/0124/63/000/005/B014/B015

SOURCE: Rzh. Mekhanika, Abs. 5B69

64

AUTHOR: Volkov, Yu.M.; Dorman, L. I.; Mikhaylov, Yu. M.

TITLE: Experiments on generation of a magnetic field in metals and the question of the origin of the geomagnetic field

CITED SOURCE: Sb. Vopr. magnitn. gidrodinamiki i dinamiki plazmy. v. 2. Riga, AN LatvSSR, 1962, 155-169

TOPIC TAGS: metal, sphere, rotation, geomagnetic field, earth, copper, lead, brass layer, magnetohydrodynamics, induced field

TRANSLATION: Experiments on the generation of a magnetic field during the rotation of a conducting body in an external magnetic field are described. Previously, theoretical formulas for the induced field were introduced. The rotation of a metallic sphere with constant angular velocity in an external homogeneous magnetic field is considered. Expressions are obtained for the induced azimuthal field in two cases: when the sphere is surrounded by a stationary conducting,

Card 1/2

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solid medium, and when the sphere is submerged in a viscous conducting liquid, which is also rotating.

The induced field is proportional to the external field, and the angular frequency of the rotation also depends on the ratios of the conductivities of the body and the medium. In the case of a solid medium the induced field falls with distance from the center of the sphere as $1/r^3$, and in the case of the liquid medium, as $1/r$. The obtained dependence is verified by experiment. The experiment was conducted not with a sphere, but with a rotating cylinder. At a large distance from the cylinder, the field in the first approximation ought to be the same for the spherical rotator, as for the cylindrical, limited in respect to height. The rotation of a copper rotator was studied, set in lead, copper, brass, and mercury layers, and also the rotation of a mercury rotator in copper. The rotations of solid metallic rotators in mercury were studied. The experiment verified the entire theoretical dependence. Induced field magnitudes of up to 1/30 of the external field were obtained.

The obtained results give a basis for judgment of the origin of geomagnetic field. They support the validity of the hypothesis of the magnetohydrodynamic derivation of the earth's field. Yu.R.

DATE ACQ: 14Jun63 SUB CODE: PH, ML ENCL: 00
Card 2/2

3.2310

S/056/62/043/003/003/063
B125/B102

AUTHORS: Dorman, L. I., and Mikhaylov, Yu. M.

TITLE: Investigation of electromagnetic phenomena involved in the motion of bodies in a conducting fluid subject to a magnetic field

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3(9), 1962, 752-762

TEXT: The field distributions in fluids are determined theoretically, also allowing for the viscosity, and a check experiment is described. The motion of a sphere of radius a and with conductivity σ_1, acted on by a homogeneous magnetic field H_0 in a poorly conducting incompressible fluid with conductivity σ_2, is described by

$$\text{rot } h = 4\pi c^{-1} j, \quad \text{rot } E = 0, \qquad (1),$$

$$\text{div } H = 0, \quad \text{div } j = 0, \quad j = \sigma (E + c^{-1} [vH_0]). \qquad (2).$$

Card 1/5

Investigation of electromagnetic ...

The coordinate system is bound to the sphere and absolute units are used. The Hartmann number and the magnetic Reynolds number, but not the hydrodynamic Reynolds number, are assumed small. The total magnetic field is represented as $\vec{H} = \vec{H}_0 + \vec{h}, \vec{h} \ll \vec{H}_0$; at infinity $\vec{v} = -\vec{v}_0$; $\vec{H} = \vec{H}_0$; $\vec{E}_\infty = -c^{-1}\left[\vec{v}_0 \vec{H}_0\right]$. If $\vec{H}_0 \parallel \vec{v}_0$ and $E = 0$, then

$$h_r = -R_M H_{0x} \frac{1}{10} \frac{r}{a} (3\cos^2\theta - 1), \quad r \leqslant a, \qquad (13),$$

$$h_r = R_M H_{0x} \frac{3}{2} \left(\frac{a^4}{10r^4} - \frac{a^2}{6r^2}\right)(3\cos^2\theta - 1), \quad r \geqslant a;$$

$$h_\theta = R_M H_{0x} \frac{3}{20} \frac{r}{a} \sin 2\theta, \quad r \leqslant a, \qquad (14)$$

$$h_\theta = R_M H_{0x} \frac{3}{20} \frac{a^4}{r^4} \sin 2\theta, \quad r \geqslant a.$$

hold for the distribution of $\vec{H}$. For $\vec{H}_0 \perp \vec{v}_0$, with $r \leqslant a$, $E_x = E_z = 0$ and with $r \geqslant a$

Card 2/5

$$E_x = -\frac{v_0}{c} H_{0z} \frac{3}{2} a^3 \frac{xy}{r^5} \frac{2\sigma_1 + \sigma_2}{\sigma_1 + 2\sigma_2},$$
$$E_y = -\frac{v_0}{c} H_{0z} \left[1 - \frac{a^3}{2r^3}\left(1 - \frac{3y^2}{r^2}\right) \frac{2\sigma_1 + \sigma_2}{\sigma_1 + 2\sigma_2}\right], \quad (16)$$
$$E_z = -\frac{v_0}{c} H_{0z} \frac{3}{2} a^3 \frac{2\sigma_1 + \sigma_2}{\sigma_1 + 2\sigma_2} \frac{yz}{r^5},$$
$$h_x = R_M H_{0z}\left(-\frac{3}{4}\frac{\sigma_1}{\sigma_1 + 2\sigma_2}\frac{a^3}{r^3} z - \frac{3}{20}\frac{a^4}{r^5} z - \frac{3}{4}\frac{a^3 x^2 z}{r^5} + \frac{3}{4}\frac{a^4 x^2 z}{r^7}\right),$$
$$h_y = R_M H_{0z}\left(-\frac{3}{4}\frac{a^3 xyz}{r^5} + \frac{3}{4}\frac{a^4 xyz}{r^7}\right),$$
$$h_z = R_M H_{0z}\left(\frac{3}{4}\frac{\sigma_1}{\sigma_1 + 2\sigma_2}\frac{a^3 x}{r^3} - \frac{3}{20}\frac{a^4 x}{r^5} - \frac{3}{4}\frac{a^3 x z^2}{r^5} + \frac{3}{4}\frac{a^4 x z^2}{r^7}\right).$$

if the velocity field has a potential. The electric field distribution in viscous fluids is described by the potential

$$\Phi = -\frac{H_0}{c}\frac{1}{r\sin\theta}\psi(r, \theta)\cos\varphi + \quad (33).$$
$$+\frac{1}{2}\frac{H_0 v_0}{c}\frac{\sigma_1 - \sigma_2}{\sigma_1 + 2\sigma_2}\frac{a^3}{r^3}\sin\theta\cos\varphi - \frac{1}{2}H_0 v_0 r\sin\theta\cos\varphi.$$

Investigation of electromagnetic ...

In the flow function $\psi = r_1 W_\varphi$, r_1 is the radius of the cross section of the body perpendicular to its axis of rotation and $\vec{W}$ is the vector potential of the velocity. ($\vec{v} = \mathrm{curl}\vec{W}$, $\mathrm{div}\vec{W} = 0$). The first term of (33) depends on the viscosity of the fluid. The second term largely depends on the conductivity level of the body. Φ increases from zero on the body's surface (with $\sigma_1 = \sigma_2$) to $v_o H_o a/c$ at a distance $a/\sqrt{Re}$ (boundary layer). Near the burble point a surface potential occurs with $\sigma_1 = \sigma_2$. With $\vec{H}_o \parallel \vec{v}_o$, $\Phi = 0$, like in ideal fluids. With $\vec{H}_o \perp \vec{v}_o$ the problem is no longer axially symmetrical. The dependences $E_y(t)$, $h_x(t)$ and $h_z(t)$ found experimentally in an annular mercury channel are similar to the theoretical distributions. The small differences are explained by the various hydrodynamic conditions before and behind the body moving in the real fluid. With critical and supercritical Reynolds numbers the distributions of E_y and h_x become more complex and the turbulence of the fluid in the channel causes an instability of amplitude and pulse shape. Measurements in electrolytes and fluid sodium are desirable. Measurements

Card 4/5

of $\vec{E}$ and $\vec{H}$ in strong magnetic fields at high Stuart numbers will supply data on the motion of a body in a fluid with $M^2/Re \gg 1$. The results obtained are of interest for certain magnetohydrodynamic problems, particularly for electric and magnetic fields affecting the motion of satellites and other bodies in conducting media. There are 7 figures.

ASSOCIATION: Magnitnaya laboratoriya Akademii nauk SSSR (Magnetic Laboratory of the Academy of Sciences USSR)

SUBMITTED: March 7, 1962

Card 5/5

S/078/61/006/003/010/022
B121/B208

AUTHORS: Dyatkina, M. Ye., Markov, V. P., Tsapkina, I. V., Mikhaylov, Yu. N.

TITLE: Electron structure of the group UO_2 in uranyl compounds

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 3, 1961, 575-580

TEXT: The stability of the uranyl group in various compounds depends on the remaining atoms or groups appearing as addenda in the coordination sphere of uranyl. The uranium atom is characterized by a large number of free electron orbits. There are donor-acceptor bonds between the ligands and uranium, which compete with the donor-acceptor bonds of the UO_2 group. This competition results in the formation of solid complexes of uranium with ligands of pronounced donor properties, such as ammonia, amines, thiourea, etc. The formation of secondary bonds between uranium and the ligands also depends largely on their ionic character. The nature of the bonds in the compounds UF and UO_2F is discussed. The existence of donor-acceptor bonds with secondary ligands prevents the appearance of additional donor-acceptor bonds of U with oxygen. By substituting H_2O or $CO(NH_2)_2$ for the secondary ligands

Electron structure ...

NO_3', C_2O_4'' or SO_4'', the number of donor-acceptor bonds is increased and the donor-acceptor bonds in the $\overleftarrow{U=O}$ group are weakened. The ν_{asUO_2} frequency thus decreases. This decrease occurs by strengthening the donor properties of the secondary ligands in uranium compounds. This result agrees with the observation made by V. M. Vdovenko, D. N. Suglobov, and V. A. Krasil'nikov (Ref. 12). The change of paramagnetic susceptibility by inclusion of secondary ligands is discussed. By exchanging H_2O for $CO(NH_2)$ in the sulfates, chlorides, and oxalates of uranyl, the paramagnetic susceptibility is slowly increased. The authors also discuss the change of the polarizability of the uranyl ion by inclusion of acceptor-donor ligands. The competition between the donor-acceptor bonds of the UO_2 group and secondary ligands is observed in the following groups: NpO_2, PuO_2, AmO_2, TiO, ZrO, VO, etc.

Mention is made of Ya. K. Syrkin, V. I. Belov, A. N. Nesmeyanov, and T. P. Tolstaya. There are 17 references: 7 Soviet-bloc and 10 non-Soviet-bloc.

SUBMITTED: September 21, 1960

Card 2/2

DYATKINA, M.Ye.; MIKHAYLOV, Yu.N.

Structure of uranyl and its analogs. Zhur.strukt.khim. 3 no.6:724-747 '62. (MIRA 15:12)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.
(Uranyl compounds) (Crystallography) (Molecular orbitals)

KULIKOVSKIY, B.N.; MIKHAYLOV, Yu.M., KUZNETSOV, V.G.

X-ray diffraction study of the oxidation products of tellurium. Zhur. neorg. khim. 8 no.6:1338-1341 Je '63. (MIRA 16:6)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

(Tellurium) (Oxidation)
(X rays—Diffraction)

L 13506-63 EWT(m)/BDS ESD-3 RM

ACCESSION NR: AP3003473 S/0078/63/008/007/1617/1622

AUTHORS: Luk'yany*chev, Yu. A.; Nikolayev, N. S.; Mikhaylov, Yu. N.

55

TITLE: Complex uranium pentafluorides

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1963, 1617-1622

TOPIC TAGS: uranium, uranium pentafluoride, thermogravimetric curve, hydiazine

ABSTRACT: Uranium pentafluorides complexed with hydroxylamine, hydrazine, and aniline were synthesized. These were uranium hydroxylamine pentafluoride, uranium hydrazine pentafluoride, and uranium aniline pentafluoride. X-ray and chemical data was obtained. Thermogravimetric curves indicated thermal instability of all 3 compounds. The hydroxylamine and hydrazine complexes decomposed to UF4 which in turn decomposes about 400F; the aniline complex dehydrated, then decomposed at about 240F to a black residual U and F containing material. Orig. art. has: 7 figures, 1 table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova, Akademii nauk. SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences, SSSR)

Card 1/2

LUK'YANYCHEV, Yu.A.; NIKOLAYEV, N.S.; MIKHAYLOV, Yu.N.

Complex uranium (IV) pentafluorides. Zhur. neorg. khim. 8 no.7:1617-1622 Jl '63. (MIRA 16:7)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.
(Uranium fluorides)
(Complex compounds)

KULIKOVSKIY, B.N.; MIKHAYLOV, Yu.N.; TRONEV, V.G.

Products of the oxidation of Te by oxygen under pressure in aqueous solutions of KOH. Zhur.neorg.khim. 8 no.9:2088-2092 S '63. (MIRA 16:10)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.Kurnakova AN SSSR.

GOLOVNYA, V.A., doktor khim. nauk; ELLERT, G.V., kand. khim. nauk; SHUBOCHKIN, L.K., kand. khim. nauk; SHCHELOKOV. R.N., kand. khim. nauk; TSAPKINA, I.V., kand. khim. nauk; TRAGGEYM, Ye.N., kand. khim. nauk; MAKOV, V.P., doktor khim. nau, [deceased]; AJTKHANOVA, Z.M.; DYATKINA, M.Ye., doktor khim. nauk; MIKHAYLOV, Yu.N.; TSAPKIN, V.V., kand. khim. nauk; BOLOTOVA, G.T., kand. khim. nauk; CHERNYAYEV, V.A., doktor khim. nauk; KORCHEMNAYA, Ye.K., red.

[Complex compounds of uranium] Kompleksnye soedineniia urana. Moskva, Izd-vo "Nauka," 1964. 488 p. (MIRA 17:7)

1. Akademiya nauk SSSR. Institut obshchey i neorganicheskoy khimii. 2. Laboratoriya khimii kompleksnykh soyedineniy aktinidov Instituta obshchey i neorganicheskoy khimii AN SSSR (for all except Korchemnaya).

DYATKINA, M.Ye.; MIKHAYLOV, Yu.N.

Nature of the Re-O bond in K ReO (CN). Zhur.strukt.khim. 5 no. 2:325 Mr-Ap '64. (MIRA 17:6)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.

TANANAYEV, I.V.; DZHURINSKIY, B.F.; MIKHAYLOV, Yu.N.

Synthesis and properties of germanium compounds of the type $MGeCl_3$ (M - NH_4, Cs, Rb, K). Zhur. neorg. khim. 9 no.7: 1570-1577 Jl '64. (MIRA 17:9)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.

MIKHAYLOV, Yu.N.

Rectification column as an object of automatic control. Trudy MINKHiGP no.52:9-23 '66. (MIRA 18:6)

ELLERT, G.V.; TSAPKIN, V.V.; [illegible], Yu.N.; KUZNETSOV, V.G.

Chloridobromide complex compounds of tetrazole-type amines.
Zhur. neorg. khim. 10 no.7:1572-1580 Jl '65. (MIRA 18:8)

MIKHAYLOV, Yu.N.; KUZNETSOV, V.G.; KOVALEVA, Ye.S.

Crystalline structure of cesium tetrabromouranylate $Cs_2[UO_2Br_4]$. Zhur.strukt.khim. 6 no.5:787-788 S-O '65. (MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR. Submitted May 21, 1965.

KULIKOVSKIY, B.N.; MIKHAYLOV, Yu.N.; TRONEV, V.G. [deceased]

Double orthotellurates. Zhur.neorg.khim. 10 no.12:
2814-2817 D '65. (MIRA 19:1)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova
AN SSSR.

L 21411-66 EWT(m)/EWP(w)/EWP(v)/T/EWP(k)/ETC(m)-6 WW/EM/DJ (3)

ACC NR: AP6009927 SOURCE CODE: UR/0413/66/000/004/0119/0120

INVENTOR: Arinushkin, L. S.; Abramovich, R. B.; Vaynbaum, I. F.; Dumov, V. I.; Mikhaylov, Yu. N.; Fedorov, V. A.; Fayzutdinov, N. Z.; Yanyshin, Y. V.

ORG: none

TITLE: Aviation turbogenerator. Class 46, No. 179131

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 119-120

TOPIC TAGS: turbogenerator, gas turbine

ABSTRACT: The proposed turbogenerator contains a gas turbine, an electric generator,

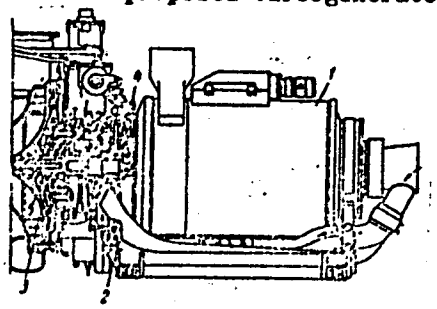


Fig. 1. Turbogenerator

1 - Electrogenerator; 2 - oil heat exchanger; 3 - fan; 4 - auxiliary fan; 5 - turbine disk.

Card 1/2 UDC: 621.313.322-81:629.13

L 21411-66
ACC NR: AP6009927

a speed regulator for the rotor, an oil system to lubricate and cool the rotor bearings, as well as an air cooling system with a centrifugal fan. To increase the service life of the turbogenerator, the oil system contains a heat exchanger through which cooling air is blown by an auxiliary centrifugal fan mounted on the turbine shaft. In variation of this turbogenerator, the air-cooling fan blades are located on the rear side of the turbine disk. The disk and blades are made in one piece (see Fig. 1). Orig. art. has: 1 figure. [TN]

SUB CODE: 21/ SUBM DATE: 27Aug63/ ATD PRESS: 4221

Card 2/2 ULR

MIKHAYLOV, Yu.P.

Economic evaluation of agricultural soils as exemplified by northeastern districts of Leningrad Province. Vest.LGU 14 no.18:57-67 '59. (MIRA 12:8)
(Leningrad Province--Soils)

MIKHAYLOV, Yu.P.

Agriculture of eastern districts of Leningrad Province as related to local natural and economic conditions. Vest.LGU 17 no.6: 93-108 '62. (MIRA 15:4)
(Leningrad Province--Agriculture)

MIKHAYLOV, Yu.P.

Several problems in developing the natural resources of the Krasnoyarsk portion of the Angara Valley. Sib. geog. sbor. no.2:135-155 '63. (MIRA 16:11)

MIKHAYLOV, Yu. P.

Conference on current problems in the study of the taiga in connection with the prospects for its reclamation. Izv. Vses. geog. ob-va 96 no. 2:153-156 Mr-Ap '64. (MIRA 17:5)

PHASE I BOOK EXPLOITATION 837

Mikhaylov, Yu. P.

Avtomaticheskaya naplavaka poroshkovoy provolokoy uplotnitel'nykh poverkhnostey stal'noy armatury (Automatic Hard Surfacing of Steel Parts by Welding With Powdered-alloy Electrode Wires) Leningrad, 1955. 8 p. (Series: Leningradskiy dom nauchno-tekhnicheskoy propagandy. Informatsionno-tekhnicheskiy listok, no. 33/721/) 7,000 copies printed.

Sponsoring Agencies: Vsesoyuznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy, Leningradskiy dom nauchno-tekhnicheskoy propagandy.

Ed.: Ryzhik, Z.M.; Tech. Ed.: Gvirts, V.L.

PURPOSE: The pamphlet is intended for metallurgists and welders interested in the process of automatic welding with consumable powdered-alloy electrodes.

Card 1/3

COVERAGE: In order to mechanize the overlaying process, VNIIESO (All-Union Scientific Research Institute for Electric Welding Equipment) designed the ADN-500 automatic welder and conducted research on the manufacturing process of hard surfacing chromium steels. VNIIESO, in cooperation with the plant imeni V.M. Molotov, introduced the manufacturing process of submerged hard surfacing of type 2Kh13 steel using powdered-alloy electrode wire. According to the data obtained by the author and the Insitute of Electric Welding imeni Ye. O. Paton, this surfacing process is simple and produces chemically stable welds. The author gives the design of the ADN-500 automatic welder and some of its component parts, the kinematic diagram of the turntable drive, and a diagram of the electric system unit. The basic operations comprising the process of automatic hard surfacing are described and operating conditions are given. By using proper fluxes, the resulting welds are better than those obtained by manual welding and meet GOST requirements. Introduction of the ADN-500 automatic welder ensures continuous operation and high quality of weld metal with desirable machining properties, increases labor productivity,

eliminates preheating, lowers consumption of electrode wire and power, and requires only semiskilled operators. There are 5 Soviet references. There is no Table of Contents; the booklet is subdivided as follows:

AVAILABLE: Library of Congress

GO/ksv
11-15-58

Card 3/3

MIKHAYLOV, Yu.P.

The ADPG-500 automatic and PDPG-300 semiautomatic equipment for electric-arc welding. Biul. tekh.-ekon. inform. no.10:11-13 '59.
(MIRA 13:3)
(Electric welding)

MEYEROVICH, I.M.; MIKHAYLOV, Yu.P.; FILATOV, A.S.

Measuring of stresses during metal rolling. Priborostroenie no.3:21-22 Mr '63. (MIRA 16:6)

(Rolling(Metalwork))
(Strains and stresses--Measurement)

MIKHAYLOV, Yu.P.

Some problems in the study of natural geographical conditions as related to the development of agriculture in the Krasnoyarsk area of the Angara Valley. Dokl. Inst. geog. Sib. i Dal'. Vost. no.2:24-[illegible] 34 '62. (MIRA 18:10)

MIKHAYLOV, Yu.P.

Plenum of the Section on Taiga Study and Development. Izv. AN SSSR. Ser. geog. no.2:162-164 Mr-Ap '65.

(MIRA 18:4)

MIKHAYLOV, Yu.P.

Current and future problems in the study of the taiga; results of a conference on the immediate problems in the study of the taiga as related to the outlook for its reclamation. Sib. geog. sbor. no.4:42-83 '65.
(MIRA 18:12)

MIKHAYLOV, Yu.P.

Geographical study of the taiga zone; work of the 1st and 2d plenums of the Taiga Section. Izv. Vses. geog. ob-va 97 no.6: 563-565 N-D '65. (MIRA 19:1)

ACC NR: AP6001935 SOURCE CODE: UR/0142/65/008/006/0668/0675

AUTHOR: Danilov, B. V.; Mikhaylov, Yu. P.

19

B

ORG: none

TITLE: Effect of fluctuations on a limiter-inertial-RC-circuit system

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 6, 1965, 668-675

TOPIC TAGS: electronic limiter, signal noise separation

ABSTRACT: The transmission is considered of lower-frequency fluctuations via a limiter in series with a linear circuit whose time constant is considerably longer than the correlation time of fluctuations observed before the limiter; this problem is encountered in some electronic measurements. Formulas describing the parameters of fluctuations at the limiter output are developed. The fluctuation dispersion under both stationary and transient conditions is determined, as is the correlation function of fluctuations at the linear-circuit output. Also, probability of exceeding a specified fluctuation-voltage threshold at the linear-circuit output (recorder input) over a specified observation time is determined. The probability formulas were verified experimentally. Orig. art. has: 5 figures and 26 formulas.

SUB CODE: 09 / SUBM DATE: 22Jun64

HW

Card 1/1

UDC: 621.391.822.3

RABINOVICH, B.I.; MIKHAYLOV, Yu. Ya.

Some problems relative to the differential transformations of resistivity prospecting curves. Geol. i geofiz. no.3:81-95 '61. (MIRA 14:5)

1. Novosibirskiy geofizicheskiy trest.
(Electric prospecting)

MIKHAYLOV, Z.G.

USSR / Acoustics. Ultrasound J-4

Abs Jour : Ref Zhur - Fizika, No 5, 1957, No 12707

Author : Mikhaylov, Z.G., Feofanov, G.N.

Inst : Leningrad University, USSR

Title : Differential Method for Measuring Absorption of Ultrasonic Waves in Liquids.

Orig Pub : Akust. zh., 1956, 2, No 2, 194-198

Abstract : Description of a method for measuring small changes in the coefficient of absorption of ultrasonic waves in liquids. The measured liquid is placed in two cuvettes, one working and the other reference. Ultrasonic pulses of equal magnitude and duration are radiated by two quartz vibrators into the liquid contained in these two cuvettes. The ultrasonic pulses,

Card : 1/2

Abs Jour : Ref Zhur - Fizika, No 5, 1957, No 12707

: reaching the opposite walls of the cuvettes, are reflected and are received by the same quartz plates, amplified, and detected. The receiver circuit is such that it is possible to measure by means of a meter the difference of the intensities of the reflected ultrasonic pulses. If the same pure liquid having the same temperature is located in both cuvettes, the difference in intensities of the received signals will be zero.

If the absorption in the working cuvette changes for some cause, the equilibrium is disturbed and the point of the instrument shows a certain deflection, proportional to the difference in the absorption between the two cuvettes. Experience has shown that at a length of acoustic path of, for example, 9 cm (double wall of cuvette), a difference $\Delta\alpha = 0.01$ cm^{-1} in the absorption coefficient causes a current of 1 ma to flow in the instrument circuit.

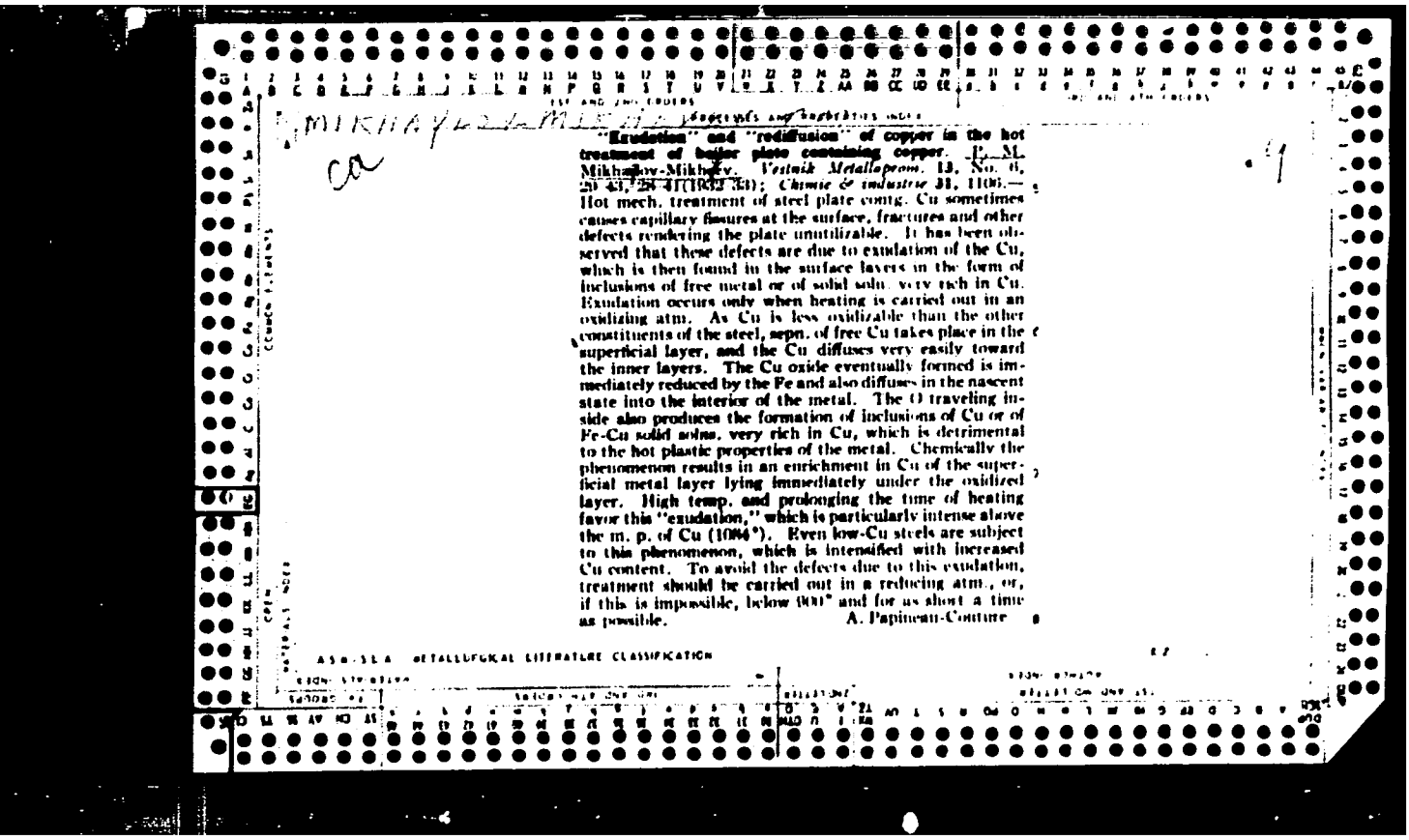
KOMAROV, N.V.; VLASOVA, N.N.; MIKHAYLOV, Z.I.

Synthesis of α-silicon-containing vinyl sulfides. Zhur. ob. khim. 35 no.9:1692 S '65. (MIRA 18:10)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR.

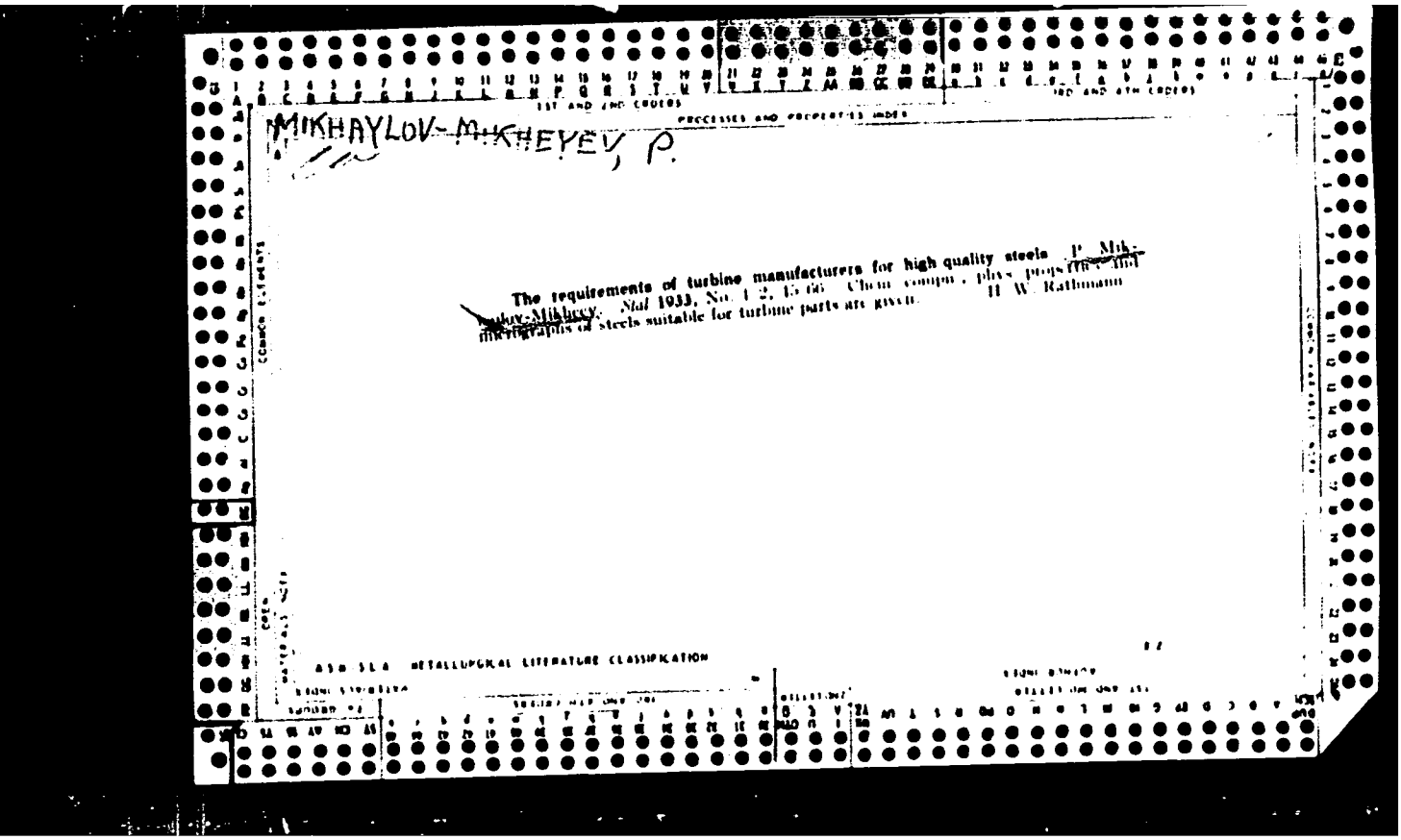
IVANOV, Yuriy Vasil'yevich, doktor tekhn. nauk; MIKHAYLOV, Z.V., red.; GOR'KOVA, A.A., ved. red.; VORONOVA, V.V., tekhn. red.

[Fundamentals of the calculation and design of gas burners] Osnovy rascheta i proektirovaniia gazovykh gorelok. Moskva, Gostoptekhizdat, 1963. 359 p. (MIRA 16:4)
(Gas burners)

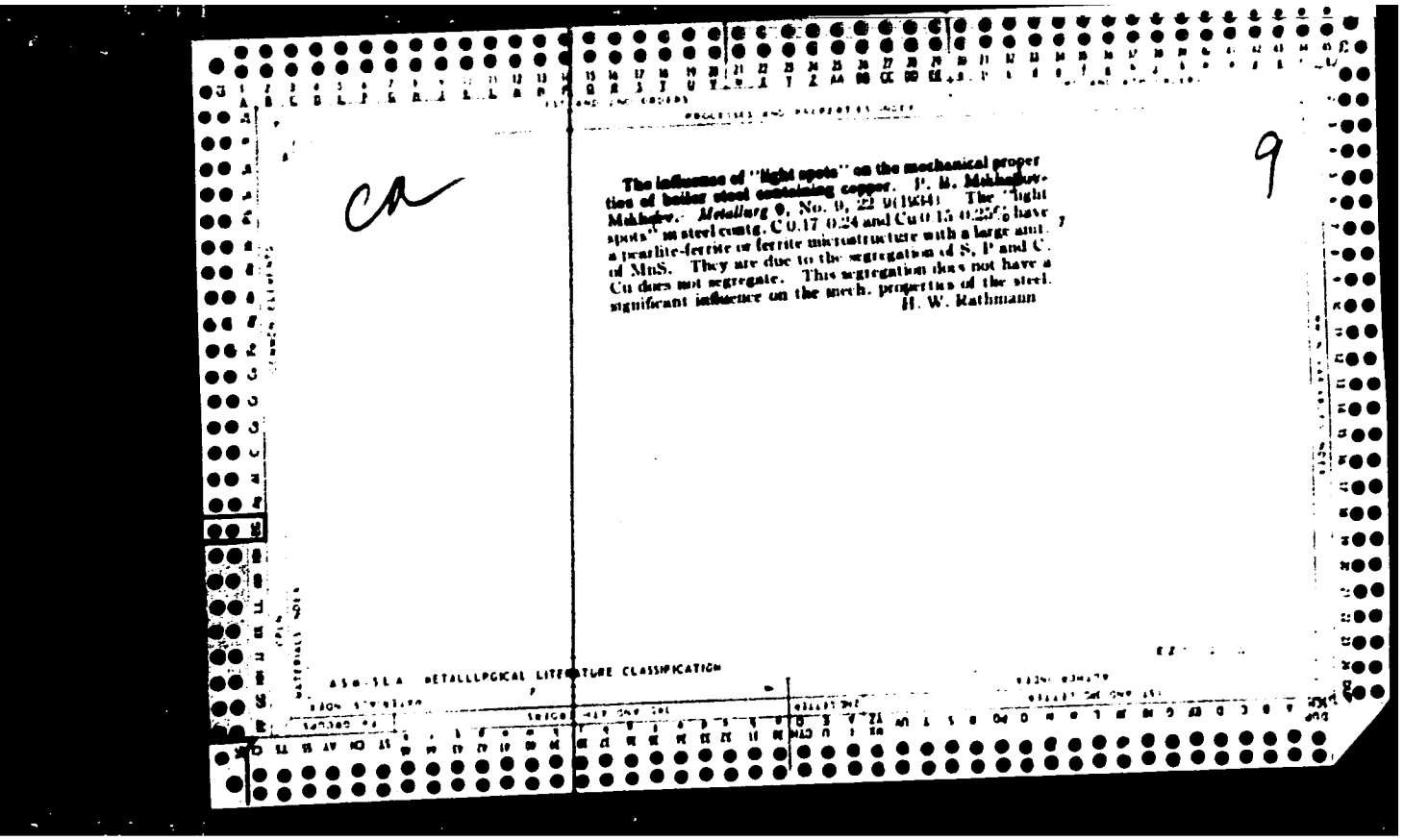


"Exudation" and "redifusion" of copper in the hot treatment of boiler plate containing copper. P. M. Mikhailov-Mikheev. *Vestnik Metallopром.* 13, No. 6, 29-43, 25-41(1933-34); *Chimie & industrie* 31, 1106.—Hot mech. treatment of steel plate contg. Cu sometimes causes capillary fissures at the surface, fractures and other defects rendering the plate unutilizable. It has been observed that these defects are due to exudation of the Cu, which is then found in the surface layers in the form of inclusions of free metal or of solid soln. very rich in Cu. Exudation occurs only when heating is carried out in an oxidizing atm. As Cu is less oxidizable than the other constituents of the steel, sepn. of free Cu takes place in the superficial layer, and the Cu diffuses very easily toward the inner layers. The Cu oxide eventually formed is immediately reduced by the Fe and also diffuses in the nascent state into the interior of the metal. The O traveling inside also produces the formation of inclusions of Cu or of Fe-Cu solid solns. very rich in Cu, which is detrimental to the hot plastic properties of the metal. Chemically the phenomenon results in an enrichment in Cu of the superficial metal layer lying immediately under the oxidized layer. High temp. and prolonging the time of heating favor this "exudation," which is particularly intense above the m. p. of Cu (1084°). Even low-Cu steels are subject to this phenomenon, which is intensified with increased Cu content. To avoid the defects due to this exudation, treatment should be carried out in a reducing atm., or, if this is impossible, below 900° and for as short a time as possible.

A. Papineau-Couture



APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001034020020-9"



CA

9

The influence of "light spots" on the mechanical properties of boiler steel containing copper. P. B. Mokhnatov-Mokhnatov. *Metallurg* 9, No. 9, 22-9(1934). The "light spots" in steel cntg. C 0.17-0.24 and Cu 0.15-0.25% have a pearlite-ferrite or ferrite microstructure with a large amt. of MnS. They are due to the segregation of S, P and C. Cu does not segregate. This segregation does not have a significant influence on the mech. properties of the steel.
H. W. Rathmann

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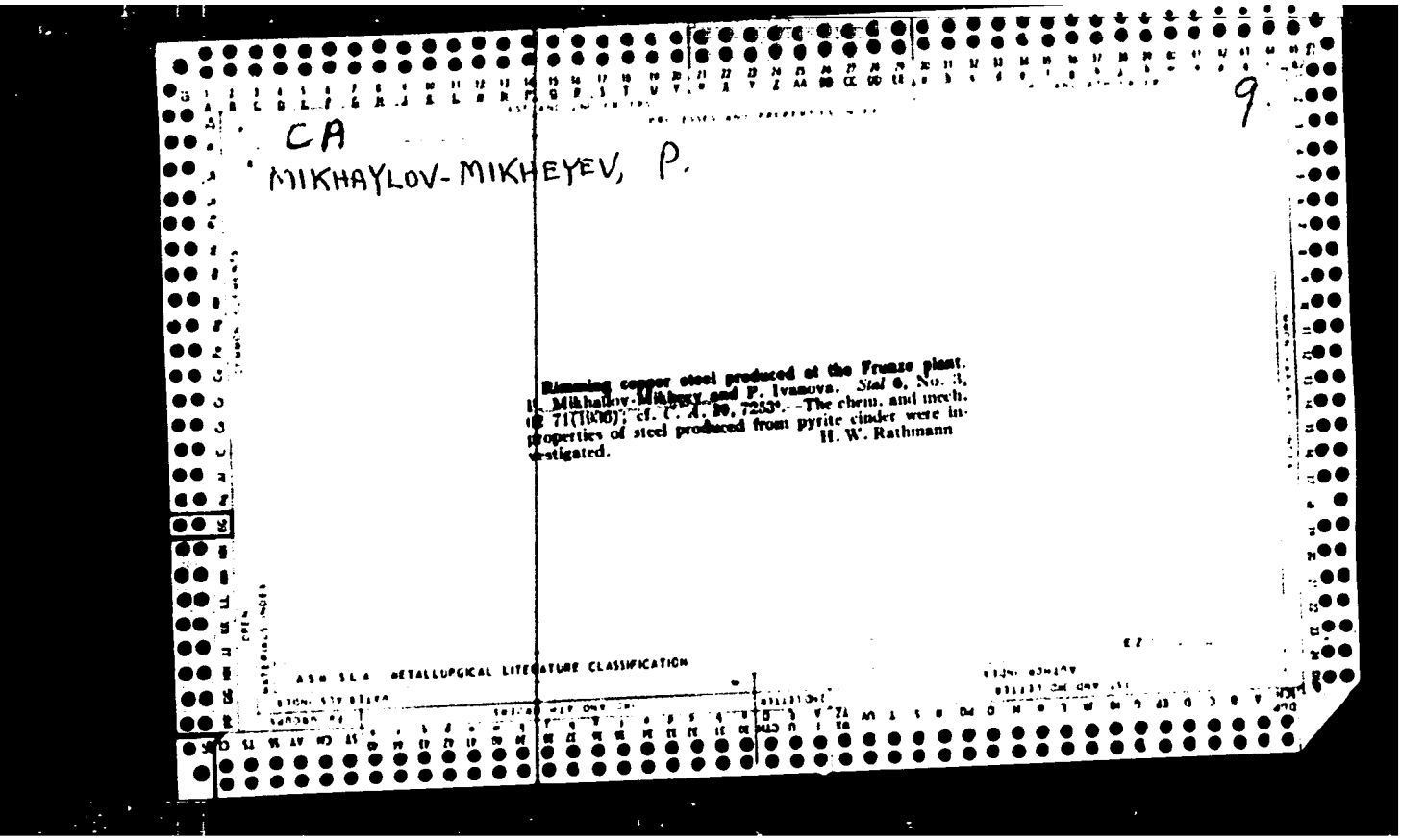


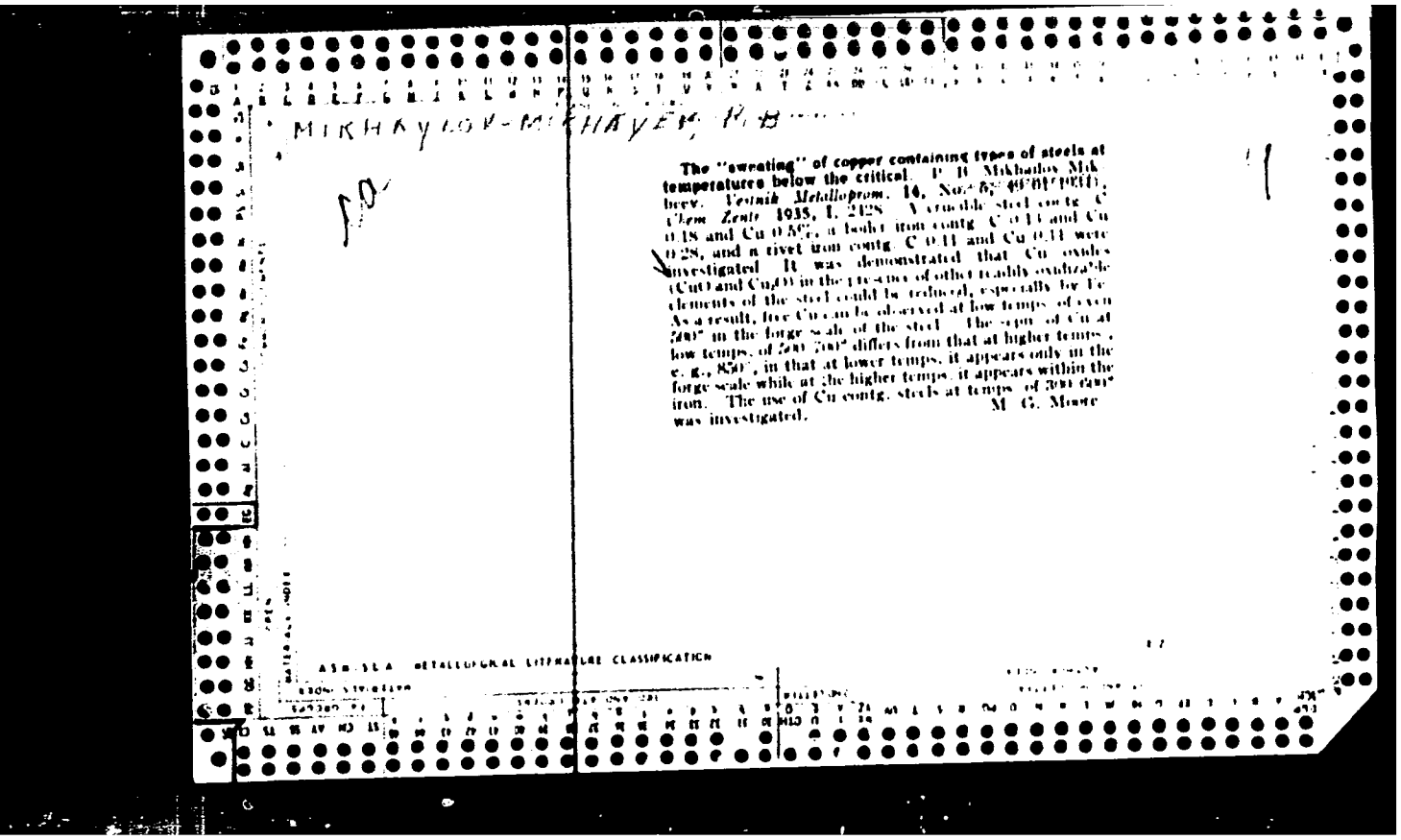
CA

MIKHAYLOV-MIKHEYEV, P.

9.

Blooming copper steel produced at the Frunze plant. P. Mikhailov-Mikheev and P. Ivanova. *Stal* 6, No. 3, 71(1936); cf. *C. A.* 30, 7253⁹. The chem. and mech. properties of steel produced from pyrite cinder were investigated. H. W. Rathmann

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION



MIKHAYLOV-MIKHAYEV, P. B.

The "sweating" of copper containing types of steels at temperatures below the critical. P. B. Mikhailov-Mikhaylov. *Vestnik Metalloprom.* 14, No. 6, 49-[illegible] (1934); *Chem. Zentr.* 1935, I, 2128. Vanadium steel contg. C 0.18 and Cu 0.5%, a boiler iron contg. C 0.11 and Cu 0.28, and a rivet iron contg. C 0.11 and Cu 0.11 were investigated. It was demonstrated that Cu oxides (Cu_2O and CuO) in the presence of other readily oxidizable elements of the steel could be reduced, especially by Fe. As a result, free Cu can be observed at low temps. of even 700° in the forge scale of the steel. The action of Cu at low temps. of 700°-750° differs from that at higher temps., e. g., 850°, in that at lower temps. it appears only in the forge scale while at the higher temps. it appears within the iron. The use of Cu contg. steels at temps. of 300°-600° was investigated.

M. G. Moore

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